

Puget Sound Partnership Science Panel  
Meeting Summary

September 16 & 17, 2008  
UW Tacoma Campus, Tacoma

---

Science Panel Members Present:

- Joel Baker
- Guy Gelfenbaum
- Robert Johnston
- Jan Newton
- Timothy Quinn
- John Stark
- Katharine Wellman

Leadership Council Members Present:

- Martha Kongsgaard

Staff:

- Cullen Stephenson, Deputy Director
- Tammy Owings, Special Assistant to the Science Panel
- Scott Redman, Action Agenda Manager
- Martha Neuman, Action Agenda Director
- Terry Wright, Special Assistant to the Tribes

---

*It is intended that this summary be used along with notebook materials provided for the meeting.  
A full recording of this meeting is retained by PSP as the formal record.*

---

Action Items:

- Approval of July 21, 2008, Workshop Summary
- Approval of 2009-2010 Science Panel meeting schedule
- Approval to transmit topic forum paper reviews and summaries

Meeting Summary:

- Work Sessions on Strategic Science Plan and Biennial Science Work Plan
  - Panel Basics
  - Action Agenda review
  - Threats and Drivers update
  - Strategic Science Plan and Biennial Science Work Plan development
  - Indicators and Benchmarks discussion
  - PSNERP Lessons Learned
  - Transboundary Science Coordination
  - Puget Sound Monitoring Consortium discussion
-

### **9:12 a.m. WORK SESSION**

The work session called to order by chair Joel Baker, introductions were made and the morning session outlined. He then reviewed the agenda for the two-day meeting.

The first item for discussion was the Biennial Science Work Plan (BSWP). Joel provided a discussion outline for reviewing the BSWP.

The Panel spent the morning going through each section of the BSWP and making changes. Sections one and two mostly needed wordsmith changes. The main focus was on sections three and four.

The group discussed how to use the BSWP and how the monitoring plan needs to be included in the planning. The most important thing the Panel can do is to articulate what is needed for a science-based plan. Overall the layout of BSWP looks good but need to discuss specific edits and follow-up assignments.

#### **Section 3.1 Invest in capacity to predict how Puget Sound could change with population growth, climate change, and other human and natural drivers**

Panel members felt there was conflict between the need to make decisions with existing information and waiting to make decisions until the gaps in information are filled. Scientists will always have existing information but will also always want more information or better models. The Panel wants to move forward with the need to make decisions, but at the same time, work on getting more and better information and models.

This is a two-year plan so want to include the latitude to continue to work toward gathering new information and creating new models while at the same time synthesizing and using existing information to make decisions.

Tim Quinn will rewrite this section of the Plan.

#### **Section 3.2 Assess efficacy of management actions in the context of systems**

The group discussed what needs to be in this section and what adaptive management is or should be. The Panel needs to help identify research questions that would be used to answer the policy questions.

Joel Baker will rewrite this section of the Plan.

### **Section 4 – Necessary Capacities**

#### **4.1 – monitoring**

The Panel discussed what this section is trying to accomplish and if it is for looking at emerging issues or new initiatives. What is the Panel trying to get to in the next two years and what action steps are needed?

This whole section will be used in generating the State of the Sound of Report, which will require all the necessary capacities to get a complete State of the Sound Report. The Panel needs to put the information together so that when people want to know about the Sound they will come to the Partnership to get the answers.

Scott Redman will redraft the outline for this section using the current outline titles of monitoring, assessment, management, research, education, etc.

### **Topic Forum Paper Review**

Joel Baker reported that, during conference call on Friday, September 12, the Panel received an update on the Topic Paper Review summaries of comments received by the external reviewers. The Panel is still waiting to get the final comments back on the water quality paper review. The human well-being paper is using a different format for its review.

General results of the reviews found:

- *Human Health* – no fatal flaws were identified and good comments were received
- *Water Quantity* – two reviewers, both had different concerns; one reviewer had significant concerns on how helpful this paper would be to the Partnership
- *Habitat and Land Use* – four reviewers - three major comments 1) struggled with the vocabulary 2) terrestrial piece under represented and 3) overuse of ecosystem process versus ecosystem structure, but this may be more of a discipline difference; good comments overall with no fatal flaws and overall complimentary of the papers
- *Water Quality* – from the three reviewers, have only received one review back and it was very critical of the paper pointing out several errors; still waiting on results from the other two reviewers but looks like water quality paper may have concerns
- *Species and Biodiversity* – four reviewers – terminology and some detail comments, but no fatal flaws

The Panel then discussed how they would like to communicate the results of the external peer review to the Partnership, authors, and public. The Panel feels the need to send the reviews to the authors to provide them an opportunity to respond.

Martha Neuman reported that, with the tight deadlines, for this round the topic papers are what they are - unless the authors would like to respond to the comments very quickly.

The group discussed whether the reviews could be published as is, with the understanding that concerns will be addressed in the future. Several Panel members voiced concern that the reviewers were not told up front that their reviews would be published, so they should be for the staff and author use only this round. Peer review is

important for the credibility of the document and we shouldn't ask people to review without making adjustments to the documents they are reviewing.

Martha suggested giving the authors the opportunity to make revisions to their topic papers. Some authors may be able to make changes, where others may not. But no matter what, the Partnership will be able to use the review information to better inform the development of the Action Agenda.

There are a lot of ways the Panel can handle reviews in the future and the Panel needs to have continuing discussion on the peer review process.

Scott will help Martha with the follow-up correspondence to go to the topic paper authors.

#### **CALL REGULAR MEETING TO ORDER – Joel Baker, Chair**

Joel Baker opened the regular meeting of the Science Panel at 12:51 p.m. and reviewed the agenda for the afternoon.

#### **PANEL BASICS**

Katharine Wellman invited the Science Panel to attend a Salish Seas expedition on October 3, 2008, at 2 p.m.

#### *July 21, 2008, Workshop Summary Approval*

Guy Gelfenbaum **MOVED** approval of the July 21, 2008, Workshop Summary. Tim Quinn **SECONDED**. Panel **APPROVED**.

#### *2009-2010 Science Panel Meeting Schedule*

The Panel would like to spread the meeting locations around the Sound so they are able to meet in all of the Action Areas and to coordinate with the Ecosystem Coordination Board's Action Area Representatives.

Jan Newton **MOVED** approval of a 2009-10 meeting schedule of:

- January 13-14, 2009
- March 10-11, 2009
- May 12-13, 2009
- July 8-9, 2009
- September 9-10, 2009
- November 17-18, 2009
- February 9-10, 2010
- April 13-14, 2010
- June 8-9, 2010
- August 24-25, 2010

- October 12-13, 2010
- December 14-15, 2010

With Conference Calls scheduled every month on the 1st and 3rd Fridays from 11:00 a.m. – 12:00 p.m.

Tim Quinn **SECONDED**. Panel **APPROVED** 2009-10 meeting schedule.

#### *Topic Forum Paper Reviews*

Science Panel approved transmittal of the topic paper reviews and summaries to Martha Neuman for follow-up with the topic paper authors.

### **ACTION AGENDA**

Martha Neuman reviewed the outline and schedule for development of the Action Agenda. This document will be short (30 pages, plus appendices).

Martha reviewed the timeline and provided some examples of the way the work product will look. She pointed out the area in need of Science Panel input and timeline for response.

She reported that the Partnership initiatives and science actions will come under the “Where do we start?” section of the Action Agenda. Martha explained that some of the initiatives are Soundwide, some are Action Area specific, and some cross over both.

She reported that the current plan is to have the first draft of the Action Agenda released on October 14. Martha would like the Science Panel to do a quick preview of the document before this release to make sure they feel the information is accurately represented. She then reviewed the schedule between today’s meeting and release of the final Action Agenda on December 1, 2008.

The Panel is concerned with the schedule, how to get the work done, provide good feedback, and still meet deadlines. They are not sure they will be able to endorse the product but could have the information under advisement. Martha reminded the Panel that they have seen most of this information already so there shouldn’t be any surprises – the information will not be new, but the packaging will be different.

The group then discussed ways to meet the deadlines and what to do if the Panel does have concerns or is unable to reach consensus on certain topics. Martha will get a memo to Joel and Scott outlining the timeline and products needed from the Science Panel.

## **THREATS AND DRIVERS**

Jennifer Knauer, Jones and Jones, provided an update on the threats and drivers work providing an overview of what has been done to date and what will be asked of the Science Panel.

She introduced Jim West and John Pierce, two members of the Threats and Drivers Steering Committee, who are presenting with her at this meeting. Jennifer noted that Bob Johnston and Mary Mahaffy are also members of the steering committee.

She explained the primary threats and drivers categories and time for completion:

1. Habitat alteration – 2008 report
2. Pollution – 2008 report
3. Surface/ground water – 2008 report
4. Invasive species – 2008 report
5. Harvest - future
6. Artificial propagation - future
7. Natural drivers - future

She explained that not all of the categories are ready to get complete DPSIR models prepared for this version of the Action Agenda. But since previous direction from the Science Panel was that not all the models are needed this round - as long as the models that are done are done very well. She believes the four identified for this round are ready to have the most complete information. The other information sets will not be ready for this report but will be in future Action Agenda revisions.

John Pierce provided an overview of the land use and effects on biodiversity DPSIR model and how this framework was used in the biodiversity strategy report to identify high-risk areas and biodiversity conservation opportunities.

Jennifer pointed out that the model John provided was the most fleshed out information, as it was used in the biodiversity strategy, and for each of the areas a possible response is linked.

Jim West provided a toxics DPSIR example.

Jennifer then reviewed the timing for Science Panel assistance, receiving the draft information on October 10 and providing comments within two weeks.

Joel is unclear how this will be used in the Action Agenda and needs to know this to prioritize getting the work done.

Martha explained that the information will be used for the system but the content won't be used. This review is not urgent and could be put on a longer timeline. She will review the priorities and provide the Science Panel with revised deadlines.

Leadership Council Member Martha Kongsgaard discussed the need to look at the whole ecosystem, to look at the science that has taken place to date, and to use, when possible, existing information.

The Panel discussed the uses for and linkages with DPSIR models and how this work should be used and expanded upon in the future.

Joel would rather not review a document that is not complete yet so would rather wait until the reports are complete before Science Panel review. Jennifer reported that four of the models are complete but she can wait for the Panel to decide on the final review timeline.

Scott noted that the Panel will continue discussing during the work session tomorrow after hearing about the indicators work and other scheduling steps.

The group talked about the different models and which models the Partnership would want to use (DPSIR, Integrated Ecosystem Assessments, Futures models or other models). Martha Kongsgaard believes the recommendation needs to come from the Science Panel.

Joel Baker agreed and discussed the need to re-engage Mary Ruckelshaus in this discussion - to get clarity on the next cycle and how these models fit together - and include the process in the BSWP in Phase 2.

The meeting was interrupted by a fire drill and Panel members and staff had to leave the building at approximately 3:40 p.m.; they returned to the meeting at 4:01 p.m.

## **STRATEGIC SCIENCE PLAN AND BIENNIAL SCIENCE WORK PLAN**

The Panel continued its discussion on the Biennial Science Work Plan.

### **Section 4.1 – Integrated Sustained Monitoring**

The Panel talked about the monitoring needs and what should be included in a budget request for monitoring efforts. They are not ready to recommend a specific modeling system and would combine both assessments and modeling under the umbrella request. The Monitoring Consortium governance still needs to be answered.

Cullen Stephenson reported that the budget was due on September 1, although the Partnership has not submitted its request yet (but need to soon). The Partnership can request just carry-forward amounts, but if we want more we need to identify that need.

The Panel agreed to put together the budget requests for capacity building on the four topics which is step one in the over all process:

- Change
- Delta
- Stormwater
- Food Web

The fifth request item is for monitoring capacity building and research initiatives.

Cullen and Scott will draft a budget proposal with numbers and get it out to the Panel for review and comment by this Friday.

A subcommittee of Scott, Jan Newton, and Joel Baker will spend time this evening working on revisions to the Strategic Science Plan to have it ready for the morning session.

#### **PUBLIC COMMENT PERIOD**

*Heather Trim, People for Puget Sound*, would like to have the Panel discuss what the role of the Monitoring Consortium should be. She reminded the Panel that local jurisdictions need to support monitoring efforts. She also reported that, although Martha Neuman said no one is reviewing the topic papers currently, she is reviewing the papers. She believes the educated public, or involved public, are also reviewing the topic papers and that they need to be as correct as possible. She believes the indicators look pretty good, but there are gaps. She noted concern with the Leadership Council wanting to limit the list of indicators to 10 for public relations efforts. She does not want to lose any of the current list of indicators.

**4:51 p.m. RECESS FOR THE EVENING**



Puget Sound Partnership Science Panel  
Meeting Summary

September 16 & 17, 2008  
UW Tacoma Campus, Tacoma

---

Science Panel Members Present:

- Joel Baker
- Guy Gelfenbaum
- Robert Johnston
- Jan Newton
- Timothy Quinn
- John Stark
- Katharine Wellman

Staff:

- Cullen Stephenson, Deputy Director
- Scott Redman
- Tammy Owings, Special Assistant to the Science Panel
- Terry Wright, Special Assistant to the Tribes
- Mary Beth Brown, Accountability Specialist

**8:40 a.m. RECONVENED MEETING – Joel Baker, Chair**

Joel welcomed everyone and asked for introductions.

Joel reviewed the agenda and provided an overview of the first day of the meeting.

**STRATEGIC SCIENCE PLAN**

Jan Newton led the facilitation of this discussion. She provided an update on the status of the Strategic Science Plan informing the Panel that:

- Tim Quinn was the lead on Section 1 – he completed his assignment but it has not been incorporated into the draft yet
- Frank Shipley was the lead on Section 2 – he completed his assignment and it has been incorporated into the draft
- Joel Baker and Jan Newton were the leads on Section 3 – this assignment is partially complete. They completed interviews with experts on human health, marine affairs, species and biodiversity food web marine water, habitat land use marine waters, water quality, and water quantity. But they still need to do interviews with the experts on the fresh water side of species/biodiversity food web and habitat land use

- Joel, with Trina Wellman and Mary Ruckelshaus' assistance, was the lead for Section 4 – this assignment is still in progress and the group will need to spend time during the afternoon work session to discuss this section
- Need to align Section 4B with the Biennial Science Work Plan and part of this is the discussion on how the Partnership's organizational chart should look for the science work
- Joel is the lead on Section 5A (implementation) and has not completed this assignment yet
- Guy Gelfenbaum, with Bob Johnston and Ken Currens, is the lead on Section 5B – this assignment is still in progress
- The research section has been drafted with Jan as the lead
- Section 6 was written by Usha Varanasi with assistance from Jan and Paul Bergman – this will be discussed more in the afternoon work session

The Panel discussed the differences between the BSWP and the Science Plan, and what information should be in which document. The two documents will need to be consistent in wording and format. The Panel was concerned with having bulleted lists of actions in the BSWP document, as that can become the focus. The group will continue this discussion during the afternoon work session.

The group discussed the proposed fellowship program and whether this takes away from potential contractors or if it is a different focus. Some Panel members were concerned about funding for this where others on the Panel saw this as a way to train future scientists to work on Puget Sound science. The group decided that it is a good idea to engage the next generation of scientists and to engage the thinking, but they don't want to limit this to one vehicle and should make it broader.

After the Panel discussed the status of each section they reviewed each section and discussed revisions.

The Panel discussed the need to find out if they can have a technical writer work on this document. A science writer may need to look over the document for readability and a technical writer look for consistency between the Strategic Science Plan and other Partnership documents.

The Panel debated the use of "adequacy" versus "certainty" and the need to provide enough information for policy-makers to make decisions. The Panel discussed the possibility of having a sidebar in the Strategic Science Plan explaining what is certainty and what is adequacy in the context of this document.

Joel will ask Mary Ruckelshaus if she will write Section 4A on "What is a healthy Puget Sound."

## **INDICATORS AND BENCHMARKS**

Scott provided an overview of this agenda item, noting that three items on indicators will be covered: the August 28 subcommittee meeting, human health, and species food web. He then reviewed the handout provided on ecosystem outcomes and provisional indicators.

The Partnership will not have a target value and interim milestones for every indicator, but there will be at least one benchmark identified for each goal. Scott will work with Mary Mahaffy and her staff to get options to use and then go back to the indicators subcommittee to see if they are agreeable. The indicators need to be ready for the October Action Agenda draft.

Indicator information falls under Section 2.4 (which will now be section 1.4 in the next version of the outline) of the Action Agenda, which covers accountability.

The Panel discussed the indicators and how at some point they would like to have a way of showing a roll up of the trends (either up or down) that can be dug deeper into. For this version of the Action Agenda there will be a smaller subset of indicators and then work will begin to identify more indicators in Phase 2.

Next step will be for the Scott to work with Mary Mahaffy to get the list together and convene another meeting of the subcommittee (includes Joel, Tim, and Frank) to get feedback and tentative approval of this list. The proposed list will need to be ready before October 14.

Trina provided a handout from August 28 indicators subcommittee meeting that was done by Mark Plummer concerning the Human Well-Being topic. This handout provided a DPSIR model, graphic on indicator categories, list of possible indicators, and sources for indicators. This information will be presented to the Leadership Council to make the policy decisions on the human well-being indicators.

The Panel discussed the possible indicators and need for picking-scale and timing. The Panel will be looking at existing indicators this round, filling gaps in Phase 2.

Scott Redman reviewed the objectives and outcomes coming from the food web discussion.

Tim reported on how the subcommittee got to this list of outcomes and indicators and need to wait until Phase 2 to finish fleshing out the list of indicators.

The Panel talked about the need for an indicator for endangered species to tie into the recovery plan implementation. There was general agreement to add an indicator for this.

Several other additional indicators were discussed on water quality, derelict gear, and oil spills.

Scott will be drafting a new version of the indicator handout updating it to add one outcome statement on imperiled species and the indicators associated with this, and to update the biodiversity/food web list of indicators and benchmarks.

### **PSNERP LESSONS LEARNED**

Brie Van Cleve and Si Simensted provided this presentation on Puget Sound Nearshore Ecosystem Recovery Program (PSNERP).

Brie provided the background and conclusions, which include:

- Clear and well-defined programs goals must be translated into scientific and technical objects
- Maintain the independence of science within an environment of maximum communication and coordination across all program sectors
- Both "bottom up" and "top down" scientific direction need to be integrated into a large-scale ecosystem restoration program
- Establish several modes of independent scientific review and input
- Allow science to systematically analyze the initial range of all possible restoration strategies and promote scientific assessment of emerging alternatives
- Require conceptual models, and promote more advance modeling
- Invest in a rigorous, science-based definition and application of adaptive management
- Seek strong scientific leadership and avoid suppressing it
- Synthesize and disseminate scientific information in a timely and comprehensible manner
- Encourage independent scientific collaboration and input

Si gave the recommendations that were provided to PSNERP and status of those recommendations:

- Incorporate independent scientific review into PSNERP (now have an independent science panel for doing peer review work)
- Prepare PSNERP Science Plan to guide the implementation and assessment of nerarshore restoration
- Add a social scientist to the Nearshore Science Team (NST)
- Seek strong scientific leadership (no action yet)
- Attract support and inform independent scientific involvement (no action, due to early funding constraints)

### **Projects**

- Working group on shoreline armoring, this project has some PSNERP funding as well as other funds

- Working on short list of 10 projects and 5 scientific dedication sites with heavy monitoring

Terry Wright provided some insight from a steering committee member's aspect. He noted the NST is an ad hoc group but funding comes from the Corps with specific project needs. To get to an independent level we will need to breach the gap between science and policy as quickly as possible.

Guy Gelfenbaum pointed out that there are several recommendations in this report that the Partnership is not following. He would hope the Panel will look at these recommendations and follow up with them as appropriate. The Panel had general agreement that the Partnership isn't following the recommendations and that many of the steps are being put off to Phase 2 of the plan. The Partnership and Panel will need to build the structures into the science program that aren't in place yet.

### **TRANSBOUNDARY SCIENCE COORDINATION**

Scott provided an update on the Puget Sound Georgia Basin Ecosystem Conference (February 8-11), which in the past this was called a "research" conference. This year the conference is going to more of a policy/science interface. Chris Townsend is the Puget Sound Partnership lead for this conference. Abstracts are due October 10. Need to decide if the Science Panel wants to do anything for this conference.

Three levels for possible Science Panel involvement:

- Individual scientists to submit abstracts
- Lead one of the specific discussion topics such as adaptive management or lessons learned on restoration
- Put out information on how the science is being used by the Partnership

There are also possible keynote opportunities.

Heather Trim reported on how the conference has changed to more policy related and the sub-themes are supposed to reflect the Puget Sound needs and are branded toward the work being done by the Partnership.

Trina Wellman and Joel Baker will work together and check with Mary Ruckelshaus to see how to get the Science Panel involved with this conference and then discuss more at the October 7, 2008, Science Panel meeting.

There may also be opportunities to have side meetings with members of the Canadian Science Panel to share science-planning ideas.

## **PUGET SOUND MONITORING CONSORTIUM**

Karen Dinicola provided the Panel with an update on the Monitoring Consortium work:

- Have started working on a stormwater project and will provide a proposal in October
- There is a newly formed Stormwater Work Group that will be developing a stormwater monitoring study

Tim Quinn asked about the connection between this group and other ad hoc groups working on stormwater. Karen reported on how the different groups link and what the next steps are supposed to be. The goal is to have a regional stormwater monitoring plan.

She discussed the plan for an oversight committee to prioritize lists and choose questions to monitor for. Joel suggested he, Karen, and Scott meet on this proposal since it still seems like they may be at cross purposes with the Science Panel. Tim Quinn, John Stark and Ken Currens need to be included in this discussion also.

## **PUBLIC COMMENT PERIOD**

*Heather Trim, People for Puget Sound*, provided her take on the stormwater work group, stating that it is not working and stormwater is still a silo. This is a frustration for the Consortium. She provided a list of questions for the Science Panel to think about.

1. Do you want the Consortium to continue?
2. Will the Partnership pay for it?
3. How would it be staffed?
4. What role do you want the Consortium to play?
5. How will you address the governance issue? (She noted that if it is just a stormwater effort there will continue to be a silo and many people will leave the effort.)
6. How will you work with other agencies?
7. How will you staff your science staff? (Consultants, staff, Consortium, and/or agencies?)

## **ADJOURN REGULAR MEETING SESSION**

The regular meeting adjourned at 1:15 p.m. The Panel then went into a work session to continue work on the BSWP and Strategic Science Plan.

## **WORK SESSION ON BIENNIAL SCIENCE WORK PLAN AND STRATEGIC SCIENCE PLAN**

The Panel continued discussion of the BSWP and Strategic Science Plan and how these two documents work together.

One discussion was on publication of Science Panel work and the process the Science Panel will use to have its work peer reviewed. Guy Gelfenbaum suggested the a process used by PSNERP along with previous suggestions made by Mary Ruckelshaus. He will provide this information to Mary and then Scott will follow-up with Mary on the peer-review process.

The Panel discussed possible business process models that could be used to get work done such as:

- Researchers and Modelers for assessments, predictions, and modeling
- Monitoring and Modelers for technologies and modeling
- Data Management and Communications (DMAC) for all processes

The Panel would want to have a diverse group of representatives on the various work groups, and to have a group that looks ecosystem-wide at the information and not take away from what agencies are currently working on. They would also want to look at integration of work being done by groups such as PSAMP, Consortium, indicators work group, etc. The thought is to have two different groups: one that sets the agenda, overview of work, etc. (may be the Science Panel); and one group that does the work.

Scott provided a proposed timeline for getting the BSWP and Strategic Science Plan completed by November 29. He will write up the proposed schedule and provide it to the Science Panel.

**4:30 p.m. ADJOURN**

Science Panel Approval

  
\_\_\_\_\_  
Joel Baker, Science Panel Chair

3/10/09  
\_\_\_\_\_  
Date

Next Meeting:      October 7, 2008  
                             Seattle area